Practitioner's	Docket No.	915-007.043

**PATENT** 

Preliminary Classification:

**Proposed Class:** 

Subclass:

NOTE:

"All applicants are requested to include a preliminary classification on newly filed patent applications. The preliminary classification, preferably class and subclass designations, should be identified in the upper right-hand comer of the letter of transmittal accompanying the application papers, for example 'Proposed Class 2, subclass 129." M.P.E.P. § 601, 7th ed.

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Mail Stop PATENT APPLICATION Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

#### **NEW APPLICATION TRANSMITTAL**

Transmitted herewith for filing is the patent application of

Inventor(s): Sami VILHONEN and Jari MELAVA

WARNING: 37 C.F.R.§ 1.41(a)(1) points out:

"(a) A patent is applied for in the name or names of the actual inventor or inventors.

"(1) The inventorship of a nonprovisional application is that inventorship set forth in the oath or declaration as prescribed by § 1.63, except as provided for in § 1.53(d)(4) and § 1.63(d). If an oath or declaration as prescribed by § 1.63 is not filed during the pendency of a nonprovisional application, the inventorship is that inventorship set forth in the application papers filed pursuant to § 1.53(b), unless a petition under this paragraph accompanied by the fee set forth in § 1.17(I) is filed supplying or changing the name or names of the inventor or inventors."

For (title): Calibrating a Loop-Filter of a Phase Locked Loop

### **CERTIFICATION UNDER 37 C.F.R. § 1.10\***

(Express Mail label number is mandatory) (Express Mail certification is optional.)

I hereby certify that this New Application Transmittal and the documents referred to as attached therein are being deposited with the United States Postal Service on this date, August 27, 2003, in an envelope as "Express Mail Post Office to Addressee," mailing Label Number \_ EV 252883783 US , addressed to the Commissioner for Patents, Washington, D.C. 20231.

> Annemarie Maher or print name of person mailing paper)

Signature of person mailing paper

**WARNING:** Certificate of mailing (first class) or facsimile transmission procedures of 37 C.F.R. § 1.8 cannot be used to obtain a date of mailing or transmission for this correspondence.

> Each paper or fee filed by "Express Mail" must have the number of the "Express Mail" mailing label placed thereon prior to mailing. 37 C.F.R. § 1.10(b).

Since the filing of correspondence under § 1.10 without the Express Mail mailing label thereon is an oversight that can be avoided by the exercise of reasonable care, requests for waiver of this requirement will not be granted on petition." Notice of Oct. 24, 1996, 60 Fed.

Reg. 56,439, at 56,442.

**WARNING:** 

## 1. Type of Application

Thi	s ne	ew application is for a(n)
		(check one applicable item below)
$\boxtimes$	Or	iginal (nonprovisional)
	De	sign
		Plant
VARNIN	iG:	"Do not use this transmittal for a completion in the U.S. of an International Application under 35 U.S.C. § $37(c)(4)$ , unless the International Application is being filed as a divisional, continuation or continuation-in-part application.
VARNIN	IG:	Do not use this transmittal for the filing of a provisional application.
NOTE:	AP.	one of the following 3 items apply, then complete and attach ADDED PAGES FOR NEW PLICATION TRANSMITTAL WHERE BENEFIT OF A PRIOR U.S. APPLICATION CLAIMED IN A NOTIFICATION IN PARENT APPLICATION OF THE FILING OF THIS CONTINUATION PLICATION.
		Divisional Continuation Continuation-in-part (C-I-P)
) Ra	nefi	t of Prior II.S. Application(s) (35.11.S.C. 88.119(s), 120, or 121)

## 2. Benefit of Prior U.S. Application(s) (35 U.S.C. §§ 119(e), 120, or 121)

NOTE: A nonprovisional application may claim an invention disclosed in one or more prior filed copending nonprovisional applications or copending international applications designating the United States of America. In order for a nonprovisional application to claim the benefit of a prior filed copending nonprovisional application or copending international application designating the United States of America, each prior application must name as an inventor at least one inventor named in the later filed nonprovisional application and disclose the named inventor's invention claimed in at least one claim of the later filed nonprovisional application in the manner provided by the first paragraph of 35 U.S.C. § 112. Each prior application must also be:

- (i) An international application entitled to a filing date in accordance with PCT Article 11 and designated the United States of America; or
- (ii) Complete as set forth in § 1.51(b); or
- (iii) Entitled to a filing date as set forth in § 1.53(b) or § 1.53(d) and include the basic filing fee set forth in § 1.16; or
- (iv) Entitled to a filing date as set forth in § 1.53(b) and have paid therein the processing and retention fee set forth in § 1.21(l) within the time period set forth in § 1.53(f).

37 C.F.R. § 1.78(a)(1).

NOTE: If the new application being transmitted is a divisional, continuation or a continuation-in-part of a parent case, or where the parent case is an International Application which designated the U.S., or benefit of a prior provisional application is claimed, then check the following item and complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.

WARNING: If an application claims the benefit of the filing date of an earlier filed application under 35 U.S.C. §§ 120, 121 or 365(c), the 20-year term of that application will be based upon the filing date of the earliest U.S. application that the application makes reference to under 35 U.S.C. §§ 120,121 or 365(c). (35 U.S.C. § 154(a)(2) does not take into account, for the determination of the patent term, any application on which priority is claimed under 35 U.S.C. §§ 199, 365(a) or 365(b).) For a c-i-p application, applicant should review whether any claim in the patent that will issue is supported by an earlier application and, if not, the applicant should consider canceling the reference to the earlier filed application. The term

of a patent is not based on a claim-by-claim approach. See Notice of April 14, 1995, 60

Fed. Reg. 20,195, at 20,205.

WARNING:		G:	When the last day of pendency of a provisional application falls on a Saturday, Sunday, or Federal holiday within the District of Columbia, any nonprovisional application claiming benefit of the provisional application must be filed prior to the Saturday, Sunday, or Federa holiday within the District of Columbia. See 37 C.F.R. § 1.78(a)(3).
			The new application being transmitted claims the benefit of prior U.S. application(s). Enclosed are ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.
3.	Pap	oers	Enclosed
	9	1.19 Pa Pa	uired for filing date under 37 C.F.R. § 1.53(b) (Regular) or 37 C.F.R. § 3 (Design) Application ges of specification ges of claims ets of drawings
	WAI	RNIN	3: DO NOT submit original drawings. A high quality copy of the drawings should be supplied when filing a patent application. The drawings that are submitted to the Office must be on strong, white, smooth, and non-shiny paper and meet the standards according to § 1.84. If corrections to the drawings are necessary, they should be made to the original drawing and a high-quality copy of the corrected original drawing then submitted to the Office. Only one copy is required or desired. For comments or proposed then-new 37 C.F.R. § 1.84, see Notice of March 9, 1988 (1990 O.G. 57-62).
	NOT	TE:	"Identifying indicia, if provided, should include the application number or the title of the invention, inventor's name, docket number (if any), and the name and telephone number of a person to call if the Office is unable to match the drawings to the proper application. This information should be placed on the back of each sheet of drawing a minimum distance of 1.5 cm (5/8 inch) down from the top of the page " 37 C.F.R. § 1.84(c)).
			(complete the following, if applicable)
			The enclosed drawing(s) are photograph(s), and there is also attached a "PETITION TO ACCEPT PHOTOGRAPH(S) AS DRAWING(S)." 37 C.F.R. § 1.84(b).
			The enclosed drawing(s) are in color. Three (3) sets of color drawings and a "PETITION TO ACCEPT COLOR DRAWING(S)" are attached. 37 C.F.R. §§ 1.84(a)(2) and 1.84(b).
		⊠	formal informal
-	B.	Oth	er Papers Enclosed
	2 1 0	_ Pa	ges of declaration and power of attorney ges of abstract ner
4.	Add	ditio	nal papers enclosed
		Am	endment to claims
		the	icel in this application claims before calculating filing fee. (At least one original independent claim must be retained for g purposes.)
		bee	the claims shown on the attached amendment. (Claims added have n numbered consecutively following the highest numbered original ms.)

		Pre	limin	ary Amendment		
		Information Disclosure Statement (37 C.F.R. § 1.98)				
		For	m P	ГО-1449 (РТО/SB/08A and 08B)		
		Cita	ation	s .		
		Dec	clara	tion of Biological Deposit		
		ame	endn	sion of "Sequence Listing," computer readable copy and/or nent pertaining thereto for biotechnology invention containing de and/or amino acid sequence		
				cation of Attorney(s) to Accept and Follow Instructions from entative		
		Spe	ecial	Comments		
		Oth	er			
5.	Dea	alars	ation	or oath (including power of attorney)		
NO		A net that bein matt appl copy are i unde deci- in a	ewly e the p g filed ler in lication mus mot in er § sion of prior	executed declaration is not required in a continuation or divisional application provided prior nonprovisional application contained a declaration as required, the application disby all or fewer than all the inventors named in the prior application, there is no new the application being filed, and a copy of the executed declaration filed in the prior (showing the signature or an indication thereon that it was signed) is submitted. The prior to be accompanied by a statement requesting deletion of the names of person(s) who eventors of the application being filed. If the declaration in the prior application was filed 1.47, then a copy of that declaration must be filed accompanied by a copy of the granting § 1.47 status or, if a nonsigning person under § 1.47 has subsequently joined application, then a copy of the subsequently executed declaration must be filed. See §§ 1.63(d)(1)-(3).		
NO	which it is directed, identify each inventor by full name including family name an given name, without abbreviation together with any other given name or in		tion filed to complete an application must be executed, identify the specification to a directed, identify each inventor by full name including family name and at least one me, without abbreviation together with any other given name or initial, and the approximation, post office address and country or citizenship of each inventor, and state whether the sa sole or joint inventor. 37 C.F.R. § 1.63(a)(1)-(4).			
NO	<i>TE:</i>	decl oath appl to § is fil	aratio or de licatio 1.53(	entorship of a nonprovisional application is that inventorship set forth in the oath or an as prescribed by § 1.62, except as provided for in § 1.53(d)(4) and § 1.63(d). If an eclaration as prescribed by § 1.63 is not filed during the pendency of a nonprovisional n, the inventorship is that inventorship set forth in the application papers filed pursuant (b), unless a petition under this paragraph accompanied by the fee set forth in § 1.17(I) upplying or changing the name or names of the inventor or inventors." 37 C.F.R. § 1.		
		X	End	closed		
			Exe	ecuted by		
				(check all applicable boxes)		
			X	inventor(s).		
				legal representative of inventor(s). 37 C.F.R. §§ 1.42 or 1.43.		
				joint inventor or person showing a proprietary interest on behalf of entor who refused to sign or cannot be reached.		
				This is the petition required by 37 C.F.R. § 1.47 and the statement required by 37 C.F. R. § 1.47 is also attached. See item 13 below for fee.		
			Not	Enclosed		

NOT	ΓE:	Where the filing is a completion in the U.S. of an International Application or where the completion of the U.S. application contains subject matter in addition to the International Application, the application may be treated as a continuation or continuation-in-part, as the case may be, utilizing ADDED PAGE FOR NEW APPLICATION TRANSMITTAL WHERE BENEFIT OF PRIOR U.S. APPLICATION CLAIMED.				
			☐ Application is made by a person authorized under 37 C.F.R. § 1.41(c) on behalf of <i>all</i> the above named inventor(s).			
(	The	dec	laration or oath, along with the surcharge required by 37 C.F.R. § 1.16(e) can be filed subsequently).			
			☐ Showing that the filing is authorized.  (not required unless called into question. 37 C.F.R. § 1.41(d))			
6.	Inv	ento	orship Statement			
WA	RNIN	G:	If the named inventors are each not the inventors of all the claims an explanation, including the ownership of the various claims at the time the last claimed invention was made, should be submitted.			
The	e inv	ento	rship for all the claims in this application is:			
		The	e same.			
			or			
			the same. An explanation, including the ownership of the various claims he time the last claimed invention was made,			
			is submitted.			
			will be submitted			
7.	Lar	ngua	age			
NO	TE:	Eng. of \$	application including a signed oath or declaration may be filed in a language other than lish. An English translation of the non-English language application and the processing fee 130.00 required by 37 C.F.R. § 1.17(k) is required to be filed with the application, or within a time as may be set by the Office. 37 C.F.R. § 1.52(d).			
		×	English Non English			
			☐ The attached translation includes a statement that the translation is accurate. 37 C.F.R. § 1.52(d).			
8.	Ass	sign	ment			
		X	An assignment of the invention to Nokia Corporation			
			is attached. A separate ☐ "COVER SHEET FOR ASSIGNMENT (DOCUMENT) ACCOMPANYING NEW PATENT APPLICATION" or ☑ FORM PTO 1595 is also attached.			
			□ will follow.			
NO	TE:		on assignment is submitted with a new application, send two separate letters-one for the lication and one for the assignment." Notice of May 4, 1990 (1114 O.G. 77-78).			

WARNIN			ecuted "CEF i-in-part appli	cation is filed by a				
				divisional app				
						Reel _		<del></del>
9. Ce	rtifie	d Copy						
Ce	rtified	d copy(ies)	) of applica	ation(s)				
Co	untry	,		Appln	. No.		1	Filed
Co	untry	,		Appin	. No.			Filed
from w	hich (	priority is o	claimed:					
		is (are) at will follow						
	pare unde item OF I	nt U.S. app. er 35 U.S.C. 18 on the A PRIOR U.S. A	lication or In § 120 is itse ADDED PAG	• ,	ation i ly from	from which thi n a prior foreig	s application n application	n claims benefit n, then complete
				CLAIMS AS I	FILE			<del></del>
Numbe	er file	d		Number Extra		Rate	37 C F I	Basic Fee
							<b>0</b> , 0	\$750.00
Total C (37 C.F			<b>12</b> - 20 =	0	х	\$18.00 =		
		t Claims § 1.16(b))	3 - 3 =	0	x	\$84.00 =		
		endent cl			+	\$280.00		
	000	Amendme	ent deletin	ing extra claim g multiple-depo is not being p	endei	ncies is enc	losed.	
NOTE:	ame	ndment, pri	or to the ex	re not paid on filir piration of the tir e of fee deficiency	ne pe	riod set for re	esponse by	

(New Application Transmittal [4-1] page 6 of 11)

В.	(\$310.00 – 37 C.F.R. § 1.16(f))	
•	Filing Fee Calculation \$	_ <del>_</del>
C.	☐ Plant application	
	(\$480.00 - 37 C.F.R. § 1.16(g))	
	Filing Fee Calculation \$	·
11. Small	Entity Statement(s)	
	tement(s) that this is a filing by a small entity under 37 C.F.R. §§ 1 7 is (are) attached.	.9 and
WARNING:	"Status as a small entity must be specifically established in each application or paths which the status is available and desired. Status as a small entity in one application to the status are directly or indirectly dependent upon the application or patent in which the has been established. The refiling of an application under § 1.53 as a contidivision, or continuation-in-part (including a continued prosecution application 1.53(d)), or the filing of a reissue application requires a new determination as to contituement to small entity status for the continuing or reissue application. A nonprapplication claiming benefit under 35 U.S.C. § 119(e), 120, 121, or 365(c) or application, or a reissue application may rely on a statement filed in the prior application the patent if the nonprovisional application or the reissue application includes a reto the statement in the prior application or in the patent or includes a copy of the sin the prior application or in the patent and status as a small entity is still prodesired. The payment of the small entity basic statutory filing fee will be treated a reference for purposes of this section." 37 C.F.R. § 1.28(a)(2).	cation or patents the status tinuation, under § continued to ovisional f a prior cation or eference tatement oper and
WARNING:	"Small entity status must not be established when the person or persons signing statement can unequivocally make the required self-certification." M.P.E.P., § 50 ed., rev. 2, July 1996 (emphasis added).	<b>j the</b> )9.03, 6 <sup>th</sup>
	(complete the following, if applicable)	
	Status as a small entity was claimed in prior application	which
	benefit is being claimed for this application under:  , from	WHICH
	35 U.S.C. § □ 119(e), □ 120, □ 121, □ 365(c), and which status as a small entity is still proper and desired	d.
	☐ A copy of the statement in the prior application is include	ded.
	Filing Fee Calculation (50% of A, B, or C above)	
	\$	
	Any excess of the full fee paid will be refunded if a small entity statement and a refunder filed within 2 months of the date of timely payment of a full fee. The two-month oot extendable under § 1.136. 37 C.F.R. § 1.28(a).	
12. Requ	st for International-Type Search (37 C.F.R. § 1.104(d))	
	(complete, if applicable)	
	ease prepare an international-type search report for this application e when national examination on the merits takes place.	at the

(New Application Transmittal [4-1] page 7 of 11)

13. Fee	Pa	yment Being Mad at This Time		
	Not	Enclosed		
		No filing fee is to be paid at this time. (This and the surcharge required by 37 C.F.R. § 1.16(e) car subsequently.)	n be paid	
×	En	closed		
	×	Filing fee	\$ <u>750.0</u>	<u>10</u>
	X	Recording assignment (\$40.00 – 37 C.F.R. § 1.21(h)) (See attached "COVER SHEET FOR ASSIGNMENT ACCOMPANYING NEW APPLICATION.")	\$ <u>40.0</u>	<u>0</u>
		Petition fee for filing by other than all the inventors or person on behalf of the inventor where inventor refused to sign or cannot be reached.  (\$130.00 - 37 C.F.R. §§ 1.47 and 1.17(i))	\$	_
		For processing an application with a specification in a non-English language (\$130.00; 37 C.F.R. §§ 1.52(d) and 1.17(k))	\$	_
		Processing and retention fee (\$130.00, 37 C.F.R. §§ 1.52(d) and 1.21(l))	\$	_
		Fee for international-type search report (\$40.00; 37 C.F.R. § 1.21(e))	\$	_
NOTE:	aba as i a p	C.F.R. § 1.21(I) establishes a fee for processing and retaining any and and one of failing to complete the application pursuant to 37 C.F.R. § 1.53(the changes to 37 C.F.R. §§ 1.53 and 1.78(a)(1), indicate that in order to observe the construction, either the basic filing fee must be paid, or the process of § 1.21(I) must be paid, within 1 year from the notification under § 53(f).	f) and this, otain the be	as well enefit of
	То	tal fees enclosed	\$	790.00
14. Me	tho	d of Payment of Fees		
X		ached is a ⊠ check □ money order in the amount of \$		
	Au	thorization if hereby made to charge the amount of \$		-
		to Deposit Account No		
		to credit card as shown on the attached credit card info authorization form PTO-2038	rmation	
□ in		narge any additional fees required by this paper or credit any e manner authorized above. A duplicate of this transmittal is		
NOTE:		es should be itemized in such a manner that it is clear for which purpose the F.R. § 1.22(b).	e fees are p	oaid. 37

# 15. Authorization to Charge Additional Fees

WARNING:		If no fees are to be paid on filing, the following items should <u>not</u> be completed.				
WARNING:		Accurately count claims, especially multiple dependent claims, to avoid unexpected high charges, if extra claim charges are authorized.				
	X	The Commissioner is hereby authorized to charge the following additional fees by this paper and during the entire pendency of this application to Account No. 23-0442				
		<ul> <li>         ≥ 37 C.F.R. § 1.16(a), (f), or (g) (filing fees)     </li> <li>         ≥ 37 C.F.R. § 1.16(b), (c), and (d) (presentation of extra claims)     </li> </ul>				
	pres the 1.16	ause additional fees for excess or multiple dependent claims not paid on filing or on later entation must only be paid or these claims canceled by amendment prior to the expiration of time period set for response by the P.T.O. in any notice of fee deficiency (37 C.F.R. § (d)), it might be best not to authorize the P.T.O. to charge additional claim fees, except sibly when dealing with amendments after final action.				
		☐ 37 C.F.R. § 1.16(e) (surcharge for filing the basic filing fee and/or declaration on a date later than the filing date of the application)				
		☐ 37 C.F.R. § 1.17(a)(1)-(5) (extension fees pursuant to § 1.136(a))				
		☐ 37 C.F.R. § 1.17 (application processing fees)				
WARNING	G:	"A written request may be submitted in an application that is an authorization to treat any concurrent or future reply, requiring a petition for an extension of time under this paragraph for its timely submission, as incorporating a petition for extension of time for the appropriate length of time. An authorization to charge all required fees, fees under § 1.17, or all required extension of time fees will be treated as a constructive petition for an extension of time in any concurrent or future reply requiring a petition for an extension of time under this paragraph for its timely submission. Submission of time in any concurrent reply requiring a petition for an extension of time under this paragraph for its timely submission." 37 C.F.R. § 1.136(a)(3).				
		☐ 37 C.F.R. § 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 C.F.R. § 1.311(b))				
NOTE:	Where an authorization to charge the issue fee to a deposit account has been filed before mailing of a Notice of Allowance, the issue fee will be automatically charged to the depactor at the time of mailing the Notice of Allowance. 37 C.F.R. § 1.311(b).					
NOTE:	37 C.F.R. § 1.28(b) requires "Notification of any change in status resulting in loss of entitlet to small entity status must be filed in the application prior to paying, or at the time of paying issue fee." From the wording of 37 C.F.R. § 1.28(b), (a) notification of change of status to be made even if the fee is paid as "other than a small entity" and (b) no notification is require the change is to another small entity.					

# 16. Instructions as to Overpayment

Customer No. 004955

NOTE:	a re	asonable time, nor will the payer ars may be returned by check or, i	be notified	ne returned unless specifically requested within d of such amounts; amounts over twenty-five d, by credit to a deposit account." 37 C.F.R. §
	図	Credit Account No	23-044	2
		Refund		
Date: A	Aug	ust 27, 2003		SIGNATURE OF PRACTITIONER
Reg. N	o. 2	27,550		SIGNATURE OF FRACTITIONER
Tel. No	. (20	93) 261-1234		Alfred A. Fressola (type or print name of practitioner
				Ware, Fressola, Van Der Sluys & Adolphson, LLP P.O. (Correspondence) Address
		*		i .o. tooneapondence) Address

Building Five, Bradford Green 755 Main Street, P.O. Box 224

Monroe, CT 06468

	Inc	orporation by reference of added pages
	prio sta the	eck the following item if the application in this transmittal claims the benefit of or U.S. application(s) (including an international application entering the U.S. ge as a continuation, divisional or C-I-P application) and complete and attach ADDED PAGES FOR NEW APPLICATION TRANSMITTAL WHERE NEFIT OF PRIOR U.S. APPLICATION(S) CLAIMED.)
		Plus Added Pages for New Application Transmittal Where Benefit of Prior U.S. Application(s) Claimed
		Number of pages added
		Plus Added Pages for Papers Referred to in Item 4 Above
		Number of pages added
		Plus added pages deleting names of inventor(s) named in prior application(s) who is/are no longer inventor(s) of the subject matter claimed in this application.
		Number of pages added
		Plus "Assignment Cover Letter Accompanying New Application"
		Number of pages added
X	Sta	itement Where No Further Pages Added
		(if no further pages form a part of this Transmittal, then end this Transmittal with this page and check the following item.
	X	This transmittal ends with this page.